

QALYs outcome used utility data from other studies, of which only one used utilities generated in Chinese population. 29% of those with composite outcomes DALYs and QALYs included cases, deaths and life years at time. 47% considered indirect cost due to causes such as sick leave and loss of productivity in addition to direct cost for the analysis. All but one studies included sensitivity analysis, but 53% did not conduct probability sensitivity analysis to see the joint effect of uncertainties around multiple parameters. Six (35%) were post hoc studies assessing the cost-effectiveness of current vaccination compared with the non-vaccination alternative. All studies except one on 7-valent pneumococcal conjugate vaccine showed cost-effectiveness for the vaccinations. **CONCLUSIONS:** Major methodological flaws and reporting problems exist in economic evaluations for vaccines in China. Local guidelines for good practice and reporting are demanded in addition to institutional mechanisms and education for improve the overall quality of economic evaluation work for immunization programs in China.

PIN71

COST-EFFECTIVENESS ANALYSIS OF NEVIRAPINE VS. RITONAVIR-BOOSTED LOPINAVIR IN HIV-INFECTED CHILDREN WITH PERIPARTUM NEVIRAPINE EXPOSURE, IN RESOURCE-CONSTRAINED AREAS FROM A PAYER'S PERSPECTIVE

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OBJECTIVES: A regimen including nevirapine (NVP) is often the predominant antiretroviral therapy (ART) available for children infected with human immunodeficiency virus (HIV) in Africa, because it is inexpensive, stable at high temperatures, and used as a single dose for the prevention of mother-to-child transmission (PMTCT) of HIV. Despite the benefits of NVP, challenges exist from the effect of NVP resistance in children who become infected with HIV regardless of prophylaxis. As a result of these concerns, ritonavir-boosted lopinavir (LPV/r) based regimens, although more expensive, are preferred by some clinicians over the less costly NVP-based regimens. We therefore evaluated the cost-effectiveness of NVP-based regimens to LPV/r-based regimens as a first-line treatment option for children with HIV after virologic suppression. **METHODS:** A Markov Model was designed to compare the cost-effectiveness of NVP-based regimens to LPV/r-based regimens for HIV-infected children with three HIV transition states, CD4% >15, CD4% <15, and death. The clinical and costs data were collected from published studies of ART for children in South Africa and based on time horizons of one year and lifetime. **RESULTS:** The resultant Incremental Cost Effectiveness Ratio (ICER) from this study demonstrates that the NVP based strategy is cost effective, with the incremental cost and the incremental QALY of the time horizon of one-year and lifetime of, \$690.15/0.92QALY and \$22,578.25/30.27QALY respectively. **CONCLUSIONS:** For HIV infected children with a history of exposure to single dose NVP (sdNVP) from PMTCT prophylaxis, it is cost-effective to switch to NVP-based regimens as a first-line treatment option after virologic suppression with LPV/r based HAART.

PIN72

COST-EFFECTIVENESS ANALYSIS OF VACCINATION AGAINST RABIES IN DOGS IN COLOMBIA

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OBJECTIVES: To estimate the cost-effectiveness of rabies vaccination program in dogs to prevent human rabies in Colombia. **METHODS:** A Markov model with daily cycles was designed to simulate the dynamics of the transmission of rabies in the dog population of Colombia. A Literature review for identifying transmission parameters within dog population and transmission to humans was carried out. The model considered two alternatives: No vaccination and dog vaccination (comparing different vaccination coverage). The burden of disease in human population, during one year, in terms of years of life lost (YLL) was estimate and program and care costs were collected from a third payer perspective. Incremental cost effectiveness ratio (ICER) of vaccination versus no vaccination was estimated. All cost were adjusted to 2013 US dollars. **RESULTS:** With no vaccination 58,591 of dog rabies cases were estimated with 5 human cases and 338 YLL. With vaccination at a 68% coverage and 75% of vaccine effectiveness, 28,664 dog cases and 2 human cases were estimated. The vaccination costs were US \$ 777,331.76; administration costs of US \$ 1,426,463.00 and wastage costs were estimated at US \$ 77,733.18; for a total program cost of US \$ 220,379.48. The variation in vaccination coverage, introduced significant changes, the most significant change is reflected in the costs to present a case of human rabies; with the current coverage is US \$ 10,394.87 to \$ 6,933.36 USD (90% coverage). The incremental cost effectiveness ratio (ICER) would be between 654 and 704 per additional year of life gained. **CONCLUSIONS:** Increase vaccination coverage in dogs to decrease the incidence of human rabies is a cost-effective strategy in Colombia.

PIN73

ESTIMATING THE COST-EFFECTIVENESS OF 12 WEEKS OF TREATMENT WITH DACLATASVIR+SOFOBUVIR IN PATIENTS CHRONICALLY INFECTED WITH HCV GENOTYPE 3

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OBJECTIVES: Chronic infection with hepatitis C virus (HCV) genotype 3 is associated with faster disease progression and is considered difficult to treat. The objective of this investigation was to compare the cost-effectiveness of two new all-oral, interferon-free treatment regimens: daclatasvir plus sofosbuvir (DCV+SOF) and sofosbuvir plus ribavirin (SOF+RBV). Historically, patients ineligible for/intolerant to interferon had no available treatment option; therefore, a comparison to no treatment was also made in these patients. **METHODS:** A published Markov model (MONARCH) was used to estimate the cost-effectiveness of treatment regimens over a lifetime horizon. Patients were evenly distributed across fibrosis stages F0–F4 upon treatment initiation. Patients progress through disease stages using published

transition rates. Disease state costs were obtained from 2013 UK data, with discounting set to 3.5%. Weekly costs were: DCV=£2,043.15, SOF=£2,915.24 and RBV=£66.95. Clinical inputs were obtained from a matching-adjusted indirect comparison (adjusts for baseline differences between trials) of ALLY-3 and VALENCE: SVRs for DCV+SOF and SOF+RBV, respectively, were 96.4% and 94.3% for treatment-naïve, 83.2% and 78.6% for treatment-experienced and 88.8% and 85.2% for interferon-ineligible intolerant patients). **RESULTS:** In all comparisons, DCV+SOF was predicted to be associated with reduced total costs and improved QoL versus SOF+RBV. Treatment naïve: DCV+SOF expected to be associated with cost savings of £12,903 and QALY gains of 0.13. Treatment-experienced: DCV+SOF expected to be associated with cost savings of £13,701 and QALY gains of 0.24. Interferon-ineligible/intolerant: DCV+SOF expected to be associated with cost savings of £13,382 and QALY gains of 0.2. Versus no treatment, DCV+SOF is expected to be cost-effective (total cost £31,875 and QALY gain of 4.12; ICER of £7,743) for interferon-ineligible/intolerant patients. **CONCLUSIONS:** 12 weeks of DCV+SOF appears a cost-effective treatment option for patients with HCV genotype 3 in all modelled scenarios. When compared to 24 weeks of SOF+RBV, DCV+SOF was predicted to be dominant.

PIN74

COST IMPLICATIONS OF TEDIZOLID USE IN ACUTE BACTERIAL SKIN AND SKIN STRUCTURE INFECTION (ABSSSI) FOR HOSPITALS AND MANAGED CARE ORGANIZATIONS (MCOS)

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OBJECTIVES: A 6-day, once-daily course of tedizolid, a novel oxazolidinone antibacterial, demonstrated non-inferior efficacy and comparable safety to a 10-day course of twice-daily linezolid in ABSSSI. We examined the economic impact of tedizolid as an alternative to linezolid on hospitals and MCOS. **METHODS:** Cost implications of tedizolid versus linezolid use were examined via cost-minimization analysis. Treatment durations for tedizolid and linezolid were modeled at 6 and 10 days, respectively, consistent with approved drug labels. ABSSSI patients were assumed to initiate parenteral (IV) therapy in the hospital and switch to oral formulations upon discharge to complete any remaining days of therapy (DOT). Inpatient linezolid DOT were derived from 2008-2012 the Truven MarketScan® claims and linked Hospital Drug Database (HDD). Adult patients with a primary or secondary diagnosis consistent with ABSSSI and ≥90 days continuous eligibility prior to admission were included in the analysis. Patients with ≤6 inpatient linezolid DOT were modeled as receiving the same inpatient DOT with tedizolid; patients with 7-10 inpatient linezolid DOT were modeled as completing a 6-day course of tedizolid in hospital. Daily drug costs were based on lowest, published wholesale average cost and included preparation/administration costs. **RESULTS:** Of 3,329 ABSSSI hospitalizations identified in the HDD, 261 (7.1%) were treated with linezolid an average of 4.2 days; outpatient linezolid DOT were estimated at 5.8 days. Inpatient and outpatient tedizolid DOT were estimated at 3.8 and 2.2 days, respectively. Average total drug costs for a 10-day course of linezolid were calculated as \$2,816 per patient (\$1,050 inpatient, \$1,766 outpatient), compared to \$1,562 (\$910 inpatient, \$652 outpatient) for a 6-day course of tedizolid. Inpatient and outpatient cost savings were maintained at linezolid daily costs at or above \$213 and \$111, respectively. **CONCLUSIONS:** Tedizolid is expected to reduce antibacterial treatment costs, with the greatest impact occurring in the outpatient setting.

PIN75

HIGH-DOSE INACTIVATED INFLUENZA VACCINE IS ASSOCIATED WITH COST SAVINGS AND BETTER OUTCOMES COMPARED TO STANDARD-DOSE INACTIVATED INFLUENZA VACCINE IN SENIORS

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OBJECTIVES: Adults ≥65 years account for most seasonal influenza-related hospitalizations and deaths. A recent 32,000-participant, head-to-head RCT (FIM12, NCT01427309) demonstrated that a high-dose influenza vaccine (HD) was 24.2% more efficacious than a standard-dose influenza vaccine (SD) in adults ≥65 years. A cost-utility analysis (CUA) of HD vs. SD in FIM12 participants was performed. **METHODS:** Health-care resource utilization data collected in the FIM12 study included: medications, non-routine medical and emergency room visits, and hospitalizations. Utilized resources were summarized across vaccine arms and unit costs were applied, using standard US cost sources, to each resource item (including vaccines; HD \$31.82; SD \$12.04) to estimate the mean total direct medical and societal costs associated with each vaccine. Adverse event data from the trial were mapped to quality of life data from the literature to estimate the effectiveness of both vaccines. The time horizon was one year's influenza season for costs and a lifetime for quality-adjusted life years (QALYs). **RESULTS:** The average per-participant direct medical costs (including influenza vaccine cost) and societal costs were \$116 and \$128 lower in the HD arm. Hospitalizations represented over 95% of the total cost and were less frequent in the HD arm (7.7% of HD participants reported ≥1 hospitalization versus 8.4% in SD arm) and average length of stay (LOS) across all participants was shorter in the HD arm (0.49 days vs 0.56 days). HD was associated with 0.0004 more QALYs per participant and, due to cost savings, dominated SD in the CUA. **CONCLUSIONS:** Despite the higher price of HD vs. SD, the total direct medical and societal costs were over \$100 lower per vaccinee in those who received HD. This was driven by a reduction in the number of hospitalizations and in the LOS for those hospitalized. HD dominated SD in the CUA.

PIN76

COST/UTILITY ANALYSIS OF PNEUMOCOCCAL VACCINES PCV13 VERSUS PPSV23 IN ADULTS OVER 18 YEARS OLD IN CHILE

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OBJECTIVES: Pneumococcal infections are a public health problem in older adults. In Chile there are two vaccines at this time, PPSV23 and PCV13. The objective of